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## **AMENDMENT TO THE CLAIMS**

Please amend the claims as follows:

1. (currently amended) A compound of formula I below, and physiologically acceptable salts, comprising:

wherein,

the "A" ring atoms <u>are selected from</u> of compound formula I comprise carbon and 0 to 2 nitrogen heteroatoms;

Ar is an aromatic ring, an aromatic ring <u>having comprising</u> at least one substituent group, a heteroaromatic ring, a heteroaromatic ring <u>having comprising</u> 1 to 5 substituent groups, a heterocyclic ring or a heterocyclic ring <u>having comprising</u> at least one substituent group;

R is selected from H, OH, OCH<sub>3</sub>, alkoxy, OCH<sub>2</sub>CH<sub>2</sub>OH, alcohol, NH<sub>2</sub>, PO<sub>3</sub>H, OPO<sub>3</sub>H, OSO<sub>3</sub>H, halogen, C(halogen)<sub>3</sub>, SE<sub>1</sub>, OE<sub>1</sub> and NE<sub>1</sub>E<sub>2</sub>,

 $E_1$  and  $E_2$  are each independently H or alkyl;

R' is selected from H, OH, alkoxy, OCH<sub>2</sub>CH<sub>2</sub>OH, alcohol, NH<sub>2</sub>, PO<sub>3</sub>H, OPO<sub>3</sub>H, OSO<sub>3</sub>H, halogen, C(halogen)<sub>3</sub>, SE<sub>1</sub>, OE<sub>1</sub> and NE<sub>1</sub>E<sub>2</sub>,

 $E_1$  and  $E_2$  are each independently H or alkyl;

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R" is  $Y-D_1-D_2-T_2$ ,

Y is optionally present and if present is selected from O, S, NH, N-alkyl, C=CH, C≡C, CH<sub>2</sub>, CH(CH<sub>3</sub>), C(CH<sub>3</sub>)<sub>2</sub>, a carbocyclic ring having 4 to 6 ring members and a heterocyclic ring having 4 to 6 ring members with 1 or 2 heteroatoms,

D<sub>1</sub> is optionally present and if present is alkyl,

D<sub>2</sub> is selected from alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic ring, a tricyclic ring, an aromatic ring and a heteroaromatic ring,

T<sub>2</sub> is optionally present and if present is selected from an aromatic ring, a substituted aromatic ring, a heteroaromatic ring, a substituted heteroaromatic ring, a heterocyclic ring, H, OH, halogen, and a substituent group;

R" and R"" are each independently selected from H, halogen, alkyl, alkoxy and a substituent group;

with the proviso that,

when Ar is 4-isopropyl pyridine or 4-isopropenyl pyridine, R''' is hydrogen, and R''' is hydrogen, then R'' can not be a straight or branched saturated alkyl having 1 to 20 carbon atoms;

when Ar is 4-isopropyl toluene or 4-isopropenyl toluene, and both R'" and R'" are hydrogen, R" can not be a straight or branched saturated alkyl having 1 to 20 carbon atoms;

when R" is  $C(CH_3)_2(CH_2)_5CH_3$ ,  $R_2$  and  $R_4$  are methyl, then R' and R" can not be H, OH or  $OCH_3$ .

## 2. cancelled

3. (previously presented) The compound of claim 1 wherein:

R'" is selected from H, halogen, C(halogen)<sub>3</sub>, lower alkyl and alkoxy;

R"" is selected from H, halogen, C(halogen)3, lower alkyl and alkoxy; and

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R" is selected from -Y-D<sub>1</sub>-D<sub>2</sub>-T<sub>2</sub>,

Y is selected from C(CH<sub>3</sub>)<sub>2</sub>, CH<sub>2</sub> and CH(CH<sub>3</sub>),

D<sub>1</sub> is optionally present and if present is alkyl,

D<sub>2</sub> is selected from alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic ring, a tricyclic ring, an aromatic ring and a heteroaromatic ring,

T<sub>2</sub> is optionally present and if present is selected from an aromatic ring, a heteroaromatic ring, a heterocyclic ring, H, OH, halogen and a substituent group.

4. (previously presented) The compound of claim 1 wherein:

R" is selected from H, halogen, C(halogen)<sub>3</sub>, lower alkyl and alkoxy;

R'''' is selected from H, halogen,  $C(halogen)_3$ , lower alkyl and alkoxy; and R'' is  $-Y-D_1-D_2-T_2$ ,

Y is selected from O, NH and N-alkyl,

D<sub>1</sub> is optionally present and if present is alkyl,

D<sub>2</sub> is selected from alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic ring, a tricyclic ring, an aromatic ring and a heteroaromatic ring,

T<sub>2</sub> is optionally present and if present is selected from an aromatic ring, a heteroaromatic ring, a heterocyclic ring, H, OH, halogen and a substituent group.

5. (previously presented) The compound of claim 1 wherein:

R" is selected from H, halogen, C(halogen)<sub>3</sub>, lower alkyl and alkoxy;

 $R^{""}$  is selected from H, halogen,  $C(halogen)_3$ , lower alkyl and alkoxy; and  $R^{"}$  is  $-Y-D_1-D_2-T_2$ ,

Y is optionally present and if present is selected from C=CH and C≡C,

 $D_1$  is optionally present and if present is alkyl,

D<sub>2</sub> is selected from alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic ring, a tricyclic ring, an aromatic ring and a heteroaromatic ring,

T<sub>2</sub> is optionally present and if present is selected from an aromatic ring, a heteroaromatic ring, a heterocyclic ring, H, OH, halogen and a substituent group.

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6. (previously presented) The compound of claim 1 wherein:

R" is selected from H, halogen, C(halogen)<sub>3</sub>, lower alkyl and alkoxy;

R"" is selected from H, halogen, C(halogen)<sub>3</sub>, lower alkyl and alkoxy; and R" is  $-Y-D_1-D_2-T_2$ ,

Y is optionally present and if present is selected from a carbocyclic ring having 4 to 6 ring members and a heterocyclic ring having 4 to 6 ring members with 1 or 2 heteroatoms,

D<sub>1</sub> is optionally present and if present is alkyl,

D<sub>2</sub> is selected from alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic ring, a tricyclic ring, an aromatic ring and a heteroaromatic ring,

T<sub>2</sub> is optionally present and if present is selected from an aromatic ring, a heteroaromatic ring, a heterocyclic ring, H, OH, halogen and a substituent group.

- 7. (previously presented) The compound of claim 1 wherein Ar is selected from an aromatic ring having 5 or 6 ring members and a heteroaromatic ring having 5 or 6 ring members.
- 8. (previously presented) The compound of claim 1 wherein Ar is selected from one of the structures:

and,

the Ar aromatic ring structure comprises 0 to 3 heteroatoms as ring members;

R1, R2, R3, R4 and R5 are each independently selected from H, OH, NH<sub>2</sub>, halogen,

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N<sub>3</sub>, NO<sub>2</sub>, NCS, C(halogen)<sub>3</sub>, CHO, OAc, OCH<sub>3</sub>, OC<sub>2</sub>H<sub>5</sub>, CH<sub>2</sub>OH, CH<sub>2</sub>CH<sub>2</sub>OH, CH<sub>2</sub>CH<sub>2</sub>OH, CN, C(=O)CH<sub>3</sub>, COOH, COOCH<sub>3</sub>, COOC<sub>2</sub>H<sub>5</sub>, COOCH(CH<sub>3</sub>)<sub>2</sub>, NHCOCH<sub>3</sub>, SCH<sub>3</sub>, SC<sub>2</sub>H<sub>5</sub>, NHCH<sub>3</sub>, CH<sub>2</sub>NH<sub>2</sub>, CH<sub>3</sub>, C<sub>2</sub>H<sub>5</sub>, C<sub>3</sub>H<sub>7</sub>, C<sub>2</sub>H<sub>3</sub>, ethynyl, alkoxy, alkylmercapto, alkylamino, di-alkylamino, alkylsulfinyl, alkylsulfonyl, methylene dioxy and a substituent group.

9. (previously presented) The compound of claim 1 wherein Ar is selected from 1-, 2- or 3-pyrrolidinyl, 1-, 2-, 3- or 4-piperidinyl, 1-, 2- or 3-morpholinyl, 1-, 2- or 3-thiomorpholinyl, 1-, 2- or 3- azetidinyl, 1-, or 2-piperazinyl, 2- or 3-tetrahydrofuranyl; or any above group substituted on any available ring carbon thereof by alkyl; or any above group unsubstituted on one or more nitrogen atoms, or any above group substituted on one or more nitrogen atoms independently by an alkyl, benzyl, lower-alkoxybenzyl or benzhydryl group; adamantyl; a carbocyclic ring, a substituted carbocyclic ring, a heteroaromatic ring, a substituted heteroaromatic ring, a bicyclic ring, a substituted bicyclic ring, a heterobicyclic ring, a substituted heterobicyclic ring, a polycyclic ring, a substituted polycyclic ring, a heteropolycyclic ring or a substituted heteropolycyclic ring.

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10. (previously presented) The compound of claim 1 wherein Ar is selected from:

$$G = \bigcap_{N \to G} G = \bigcap_{N \to G}$$

G is selected from H, OH, NH<sub>2</sub>, halogen, N<sub>3</sub>, NO<sub>2</sub>, NCS, CF<sub>3</sub>, CHO, OAc, OCH<sub>3</sub>, OC<sub>2</sub>H<sub>5</sub>, CH<sub>2</sub>OH, CH<sub>2</sub>CH<sub>2</sub>OH, CH<sub>2</sub>CH<sub>2</sub>OH, CN, C(=O)CH<sub>3</sub>, COOH, COOCH<sub>3</sub>, COOC<sub>2</sub>H<sub>5</sub>, COOCH(CH<sub>3</sub>)<sub>2</sub>, NHCOCH<sub>3</sub>, SCH<sub>3</sub>, SC<sub>2</sub>H<sub>5</sub>, NHCH<sub>3</sub>, CH<sub>2</sub>NH<sub>2</sub>, CH<sub>3</sub>, C<sub>2</sub>H<sub>5</sub>, C<sub>3</sub>H<sub>7</sub>, C<sub>2</sub>H<sub>3</sub>, ethynyl, alkoxy, alkylmercapto, alkylamino, di-alkylamino, alkylsulfinyl, alkylsulfonyl and methylene dioxy.

11. (currently amended) A pharmaceutical preparation comprising a therapeutically effective amount of at least one compound of formula I below, and physiologically acceptable salts thereof:

wherein',

the "A" ring atoms <u>are selected from</u> of compound formula I comprise carbon and 0 to 2 nitrogen heteroatoms;

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Ar is an aromatic ring, an aromatic ring <u>having comprising</u> at least one substituent group, a heteroaromatic ring, a heteroaromatic ring <u>having comprising</u> 1 to 5 substituent groups, a heterocyclic ring or a heterocyclic ring <u>having comprising</u> at least one substituent group;

R is selected from H, OH, OCH<sub>3</sub>, alkoxy, OCH<sub>2</sub>CH<sub>2</sub>OH, alcohol, NH<sub>2</sub>, PO<sub>3</sub>H, OPO<sub>3</sub>H, OSO<sub>3</sub>H, halogen, C(halogen)<sub>3</sub>, SE<sub>1</sub>, OE<sub>1</sub> and NE<sub>1</sub>E<sub>2</sub>,

E<sub>1</sub> and E<sub>2</sub> are each independently H or alkyl;

R' is selected from OH, alkoxy, OCH $_2$ CH $_2$ OH, alcohol, NH $_2$ , PO $_3$ H, OPO $_3$ H, OSO $_3$ H, halogen, C(halogen) $_3$ , SE $_1$ , OE $_1$  and NE $_1$ E $_2$ ,

E<sub>1</sub> and E<sub>2</sub> are each independently H or alkyl;

R" is  $Y-D_1-D_2-T_2$ ,

Y is optionally present and if present is selected from O, S, NH, N-alkyl, C=CH, C≡C, CH<sub>2</sub>, CH(CH<sub>3</sub>), C(CH<sub>3</sub>)<sub>2</sub>, a carbocyclic ring having 4 to 6 ring members and a heterocyclic ring having 4 to 6 ring members with 1 or 2 heteroatoms,

D<sub>1</sub> is optionally present and if present is alkyl,

D<sub>2</sub> is selected from alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic ring, a tricyclic ring, an aromatic ring and a heteroaromatic ring,

T<sub>2</sub> is optionally present and if present is selected from an aromatic ring, a substituted aromatic ring, a heteroaromatic ring, a substituted heteroaromatic ring, a heterocyclic ring, a substituted heterocyclic ring, H, OH, halogen, and a substituent group;

R" and R"" are each independently selected from H, halogen, alkyl, alkoxy and a substituent group;

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with the proviso that,

when Ar is 4-isopropyl pyridine or 4-isopropenyl pyridine, R" is hydrogen, and R" is hydrogen, then R" can not be a straight or branched saturated alkyl having 1 to 20 carbon atoms;

when Ar is 4-isopropyl toluene or 4-isopropenyl toluene, and both R" and R" are hydrogen, R" can not be a straight or branched saturated alkyl having 1 to 20 carbon atoms;

when R" is  $C(CH_3)_2(CH_2)_5CH_3$ ,  $R_2$  and  $R_4$  are methyl, then R' and R" can not be H, OH or  $OCH_3$ .

## 12. cancelled

13. (previously presented) The pharmaceutical preparation of claim 11, wherein:
R''' is selected from H, halogen, C(halogen)<sub>3</sub>, lower alkyl and alkoxy;
R'''' is selected from H, halogen, C(halogen)<sub>3</sub>, lower alkyl and alkoxy; and
R'' is -Y-D<sub>1</sub>-D<sub>2</sub>-T<sub>2</sub>,

Y is optionally present and if present is selected from O, S, NH, N-alkyl, C=CH, C≡C, CH<sub>2</sub>, CH(CH<sub>3</sub>), C(CH<sub>3</sub>)<sub>2</sub>, a carbocyclic ring having 4 to 6 ring members and a heterocyclic ring having 4 to 6 ring members with 1 or 2 heteroatoms,

D<sub>1</sub> is optionally present and if present is alkyl,

D<sub>2</sub> is selected from alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic ring, a tricyclic ring, an aromatic ring and a heteroaromatic ring,

T<sub>2</sub> is optionally present and if present is selected from an aromatic ring, a heteroaromatic ring, a heterocyclic ring, H, OH, halogen and a substituent group.

14. (currently amended) A method of stimulating a cannabinoid receptor in an individual or animal comprising administering to the individual or animal a therapeutically effective amount of at least one compound of formula I below, and physiologically acceptable salts thereof:

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wherein,

the "A" ring atoms of compound formula I comprise carbon and 0 to 2 nitrogen heteroatoms;

Ar is an aromatic ring, an aromatic ring <u>having comprising</u> at least one substituent group, a heteroaromatic ring, a heteroaromatic ring <u>having comprising</u> 1 to 5 substituent groups, a heterocyclic ring or a heterocyclic ring <u>having comprising</u> at least one substituent group;

R is selected from H, OH, OCH<sub>3</sub>, alkoxy, OCH<sub>2</sub>CH<sub>2</sub>OH, alcohol, NH<sub>2</sub>, PO<sub>3</sub>H, OPO<sub>3</sub>H, OSO<sub>3</sub>H, halogen, C(halogen)<sub>3</sub>, SE<sub>1</sub>, OE<sub>1</sub> and NE<sub>1</sub>E<sub>2</sub>,

 $E_1$  and  $E_2$  are each independently H or alkyl;

R' is selected from OH, alkoxy, OCH<sub>2</sub>CH<sub>2</sub>OH, alcohol, NH<sub>2</sub>, PO<sub>3</sub>H, OPO<sub>3</sub>H, OSO<sub>3</sub>H, halogen, C(halogen)<sub>3</sub>, SE<sub>1</sub>, OE<sub>1</sub> and NE<sub>1</sub>E<sub>2</sub>,

E<sub>1</sub> and E<sub>2</sub> are each independently H or alkyl;

R" is  $Y-D_1-D_2-T_2$ ,

Y is optionally present and if present is selected from O, S, NH, N-alkyl, C=CH, C≡C, CH<sub>2</sub>, CH(CH<sub>3</sub>), C(CH<sub>3</sub>)<sub>2</sub>, a carbocyclic ring having 4 to 6 ring members and a heterocyclic ring having 4 to 6 ring members with 1 or 2 heteroatoms,

D<sub>1</sub> is optionally present and if present is alkyl,

D<sub>2</sub> is selected from alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic

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ring, a tricyclic ring, an aromatic ring and a heteroaromatic ring,

T<sub>2</sub> is optionally present and if present is selected from an aromatic ring, a substituted aromatic ring, a heteroaromatic ring, a substituted heteroaromatic ring, a heterocyclic ring, a substituted heterocyclic ring, H, OH, halogen, and a substituent group;

R" and R" are each independently selected from H, halogen, alkyl, alkoxy and a substituent group;

with the proviso that,

when Ar is 4-isopropyl pyridine or 4-isopropenyl pyridine, R" is hydrogen, and R" is hydrogen, then R" can not be a straight or branched saturated alkyl having 1 to 20 carbon atoms;

when Ar is 4-isopropyl toluene or 4-isopropenyl toluene, and both R" and R" are hydrogen, R" can not be a straight or branched saturated alkyl having 1 to 20 carbon atoms;

when R" is  $C(CH_3)_2(CH_2)_5CH_3$ , R<sub>2</sub> and R<sub>4</sub> are methyl, then R' and R" can not be H, OH or  $OCH_3$ .

15. (previously presented) The method of claim 14 wherein:

R" is selected from H, halogen, C(halogen)3, lower alkyl and alkoxy;

R"" is selected from H, halogen, C(halogen)<sub>3</sub>, lower alkyl and alkoxy; and R" is  $-Y-D_1-D_2-T_2$ ,

Y is optionally present and if present is selected from O, S, NH, N-alkyl, C=CH, C≡C, CH<sub>2</sub>, CH(CH<sub>3</sub>), C(CH<sub>3</sub>)<sub>2</sub>, a carbocyclic ring having 4 to 6 ring members and a heterocyclic ring having 4 to 6 ring members with 1 or 2 heteroatoms,

D<sub>1</sub> is optionally present and if present is alkyl,

D<sub>2</sub> is selected from alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic ring, a tricyclic ring, an aromatic ring and a heteroaromatic ring,

T<sub>2</sub> is optionally present and if present is selected from an aromatic ring, a

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heteroaromatic ring, a heterocyclic ring, H, OH, halogen and a substituent group.

16. (currently amended) A method of selectively stimulating CB2 cannabinoid receptors in an individual or animal comprising administering to the individual or animal a therapeutically effective amount of at least one compound of formula I below, and physiologically acceptable salts thereof:

wherein,

the "A" ring atoms of compound formula I comprise carbon and 0 to 2 nitrogen heteroatoms;

Ar is an aromatic ring, an aromatic ring <u>having comprising</u> at least one substituent group, a heteroaromatic ring, a heteroaromatic ring <u>having comprising</u> 1 to 5 substituent groups, a heterocyclic ring or a heterocyclic ring <u>having comprising</u> at least one substituent group;

R is selected from H, OH, OCH<sub>3</sub>, alkoxy, OCH<sub>2</sub>CH<sub>2</sub>OH, alcohol, NH<sub>2</sub>, PO<sub>3</sub>H, OPO<sub>3</sub>H, OSO<sub>3</sub>H, halogen, C(halogen)<sub>3</sub>, SE<sub>1</sub>, OE<sub>1</sub> and NE<sub>1</sub>E<sub>2</sub>,

E<sub>1</sub> and E<sub>2</sub> are each independently H or alkyl;

R' is selected from OH, alkoxy, OCH<sub>2</sub>CH<sub>2</sub>OH, alcohol, NH<sub>2</sub>, PO<sub>3</sub>H, OPO<sub>3</sub>H, OSO<sub>3</sub>H, halogen, C(halogen)<sub>3</sub>, SE<sub>1</sub>, OE<sub>1</sub> and NE<sub>1</sub>E<sub>2</sub>,

E<sub>1</sub> and E<sub>2</sub> are each independently H or alkyl;

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R" is  $Y-D_1-D_2-T_2$ ,

Y is optionally present and if present is selected from O, S, NH, N-alkyl, C=CH, C≡C, CH<sub>2</sub>, CH(CH<sub>3</sub>), C(CH<sub>3</sub>)<sub>2</sub>, a carbocyclic ring having 4 to 6 ring members and a heterocyclic ring having 4 to 6 ring members with 1 or 2 heteroatoms,

D<sub>1</sub> is optionally present and if present is alkyl,

D<sub>2</sub> is selected from alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic ring, a tricyclic ring, an aromatic ring and a heteroaromatic ring,

T<sub>2</sub> is optionally present and if present is selected from an aromatic ring, a substituted aromatic ring, a heteroaromatic ring, a substituted heteroaromatic ring, a heterocyclic ring, a substituted heterocyclic ring, H, OH, halogen, and a substituent group;

R" and R"" are each independently selected from H, halogen, alkyl, alkoxy and a substituent group;

with the proviso that,

when Ar is 4-isopropyl pyridine or 4-isopropenyl pyridine, R" is hydrogen, and R" is hydrogen, then R" can not be a straight or branched saturated alkyl having 1 to 20 carbon atoms;

when Ar is 4-isopropyl toluene or 4-isopropenyl toluene, and both R'" and R'" are hydrogen, R" can not be a straight or branched saturated alkyl having 1 to 20 carbon atoms;

when R" is  $C(CH_3)_2(CH_2)_5CH_3$ ,  $R_2$  and  $R_4$  are methyl, then R' and R" can not be H, OH or  $OCH_3$ .

17. (previously presented) The method of claim 16, wherein:

R" is selected from H, halogen, C(halogen)3, lower alkyl and alkoxy;

R"" is selected from H, halogen, C(halogen)<sub>3</sub>, lower alkyl and alkoxy; and

R" is -Y-D<sub>1</sub>-D<sub>2</sub>-T<sub>2</sub>,

Y is optionally present and if present is selected from O, S, NH, N-alkyl,

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C=CH, C≡C, CH<sub>2</sub>, CH(CH<sub>3</sub>), C(CH<sub>3</sub>)<sub>2</sub>, a carbocyclic ring having 4 to 6 ring members and a heterocyclic ring having 4 to 6 ring members with 1 or 2 heteroatoms,

D<sub>1</sub> is optionally present and if present is alkyl,

D<sub>2</sub> is selected from alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic ring, a tricyclic ring, an aromatic ring and a heteroaromatic ring,

T<sub>2</sub> is optionally present and if present is selected from an aromatic ring, a heteroaromatic ring, a heterocyclic ring, H, OH, halogen and a substituent group.

18. (currently amended) A method of treating a condition comprising administering to an individual or animal having the condition a therapeutically effective amount of at least one compound of formula I below, and physiologically acceptable salts thereof:

wherein,

the "A" ring atoms of compound formula I comprise carbon and 0 to 2 nitrogen heteroatoms;

Ar is an aromatic ring, an aromatic ring <u>having comprising</u> at least one substituent group, a heteroaromatic ring, a heteroaromatic ring <u>having comprising</u> 1 to 5 substituent groups, a heterocyclic ring or a heterocyclic ring <u>having comprising</u> at least one substituent group;

R is selected from H, OH, OCH<sub>3</sub>, alkoxy, OCH<sub>2</sub>CH<sub>2</sub>OH, alcohol, NH<sub>2</sub>, PO<sub>3</sub>H, OPO<sub>3</sub>H, OSO<sub>3</sub>H, halogen, C(halogen)<sub>3</sub>, SE<sub>1</sub>, OE<sub>1</sub> and NE<sub>1</sub>E<sub>2</sub>,

E<sub>1</sub> and E<sub>2</sub> are each independently H or alkyl;

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R' is selected from OH, alkoxy, OCH<sub>2</sub>CH<sub>2</sub>OH, alcohol, NH<sub>2</sub>, PO<sub>3</sub>H, OPO<sub>3</sub>H, OSO<sub>3</sub>H, halogen, C(halogen)<sub>3</sub>, SE<sub>1</sub>, OE<sub>1</sub> and NE<sub>1</sub>E<sub>2</sub>,

E<sub>1</sub> and E<sub>2</sub> are each independently H or alkyl;

R" is Y-D<sub>1</sub>-D<sub>2</sub>-T<sub>2</sub>,

Y is optionally present and if present is selected from O, S, NH, N-alkyl, C=CH, C≡C, CH<sub>2</sub>, CH(CH<sub>3</sub>), C(CH<sub>3</sub>)<sub>2</sub>, a carbocyclic ring having 4 to 6 ring members and a heterocyclic ring having 4 to 6 ring members with 1 or 2 heteroatoms,

D<sub>1</sub> is optionally present and if present is alkyl,

D<sub>2</sub> is selected from alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic ring, a tricyclic ring, an aromatic ring and a heteroaromatic ring,

T<sub>2</sub> is optionally present and if present is selected from an aromatic ring, a substituted aromatic ring, a heteroaromatic ring, a substituted heteroaromatic ring, a heterocyclic ring, a substituted heterocyclic ring, H, OH, halogen, and a substituent group;

R" and R" are each independently selected from H, halogen, alkyl, alkoxy and a substituent group,

with the proviso that,

when Ar is 4-isopropyl pyridine or 4-isopropenyl pyridine, R" is hydrogen, and R"" is hydrogen, then R" can not be a straight or branched saturated alkyl having 1 to 20 carbon atoms;

when Ar is 4-isopropyl toluene or 4-isopropenyl toluene, and both R'" and R'" are hydrogen, R" can not be a straight or branched saturated alkyl having 1 to 20 carbon atoms;

when R" is  $C(CH_3)_2(CH_2)_5CH_3$ , R<sub>2</sub> and R<sub>4</sub> are methyl, then R' and R" can not be H, OH or  $OCH_3$ .

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19. (previously presented) The method of claim 18, wherein:

R" is selected from H, halogen, C(halogen)3, lower alkyl and alkoxy;

R"" is selected from H, halogen, C(halogen)<sub>3</sub>, lower alkyl and alkoxy; and R" is  $-Y-D_1-D_2-T_2$ ,

Y is optionally present and if present is selected from O, S, NH, N-alkyl, C=CH, C≡C, CH<sub>2</sub>, CH(CH<sub>3</sub>), C(CH<sub>3</sub>)<sub>2</sub>, a carbocyclic ring having 4 to 6 ring members and a heterocyclic ring having 4 to 6 ring members with 1 or 2 heteroatoms,

D<sub>1</sub> is optionally present and if present is alkyl,

D<sub>2</sub> is selected from alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic ring, a tricyclic ring, an aromatic ring and a heteroaromatic ring,

T<sub>2</sub> is optionally present and if present is selected from an aromatic ring, a heteroaromatic ring, a heterocyclic ring, H, OH, halogen and a substituent group.

20. (currently amended) A method of providing a physiological response in an individual or animal comprising administering to the individual or animal a therapeutically effective amount of at least one compound of formula I below, and physiologically acceptable salts thereof:

wherein.

the "A" ring atoms of compound formula I comprise carbon and 0 to 2 nitrogen heteroatoms;

Ar is an aromatic ring, an aromatic ring <u>having comprising</u> at least one substituent group, a heteroaromatic ring, a heteroaromatic ring <u>having comprising</u> 1 to 5 substituent

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groups, a heterocyclic ring or a heterocyclic ring <u>having</u> <del>comprising</del> at least one substituent group;

R is selected from H, OH, OCH<sub>3</sub>, alkoxy, OCH<sub>2</sub>CH<sub>2</sub>OH, alcohol, NH<sub>2</sub>, PO<sub>3</sub>H, OPO<sub>3</sub>H, OSO<sub>3</sub>H, halogen, C(halogen)<sub>3</sub>, SE<sub>1</sub>, OE<sub>1</sub> and NE<sub>1</sub>E<sub>2</sub>,

 $E_1$  and  $E_2$  are each independently H or alkyl;

R' is selected from  $H_7$  OH, alkoxy, OCH<sub>2</sub>CH<sub>2</sub>OH, alcohol, NH<sub>2</sub>, PO<sub>3</sub>H, OPO<sub>3</sub>H, OSO<sub>3</sub>H, halogen, C(halogen)<sub>3</sub>, SE<sub>1</sub>, OE<sub>1</sub> and NE<sub>1</sub>E<sub>2</sub>,

 $E_1$  and  $E_2$  are each independently H or alkyl;

R" is  $Y-D_1-D_2-T_2$ ,

Y is optionally present and if present is selected from O, S, NH, N-alkyl, C=CH, C≡C, CH<sub>2</sub>, CH(CH<sub>3</sub>), C(CH<sub>3</sub>)<sub>2</sub>, a carbocyclic ring having 4 to 6 ring members and a heterocyclic ring having 4 to 6 ring members with 1 or 2 heteroatoms,

D<sub>1</sub> is optionally present and if present is alkyl,

D<sub>2</sub> is selected from alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic ring, a tricyclic ring, an aromatic ring and a heteroaromatic ring,

T<sub>2</sub> is optionally present and if present is selected from an aromatic ring, a substituted aromatic ring, a heteroaromatic ring, a substituted heteroaromatic ring, a heterocyclic ring, a substituted heterocyclic ring, H, OH, halogen, and a substituent group;

R''' and R'''' are each independently selected from H, halogen, alkyl, alkoxy and a substituent group,

with the proviso that,

when Ar is 4-isopropyl pyridine or 4-isopropenyl pyridine, R" is hydrogen, and R" is hydrogen, then R" can not be a straight or branched saturated alkyl having 1 to 20 carbon atoms;

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when Ar is 4-isopropyl toluene or 4-isopropenyl toluene, and both R" and R" are hydrogen, R" can not be a straight or branched saturated alkyl having 1 to 20 carbon atoms;

when R" is  $C(CH_3)_2(CH_2)_5CH_3$ ,  $R_2$  and  $R_4$  are methyl, then R' and R" can not be H, OH or  $OCH_3$ .

21. (previously presented) The method of claim 20, wherein:

R"' is selected from H, halogen, C(halogen)<sub>3</sub>, lower alkyl and alkoxy; R"' is selected from H, halogen, C(halogen)<sub>3</sub>, lower alkyl and alkoxy; and R" is  $-Y-D_1-D_2-T_2$ .

Y is optionally present and if present is selected from O, S, NH, N-alkyl, C=CH, C≡C, CH<sub>2</sub>, CH(CH<sub>3</sub>), C(CH<sub>3</sub>)<sub>2</sub>, a carbocyclic ring having 4 to 6 ring members and a heterocyclic ring having 4 to 6 ring members with 1 or 2 heteroatoms,

D<sub>1</sub> is optionally present and if present is alkyl,

D<sub>2</sub> is selected from alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic ring, a tricyclic ring, an aromatic ring and a heteroaromatic ring,

T<sub>2</sub> is optionally present and if present is selected from an aromatic ring, a heteroaromatic ring, a heterocyclic ring, H, OH, halogen and a substituent group.

22. (currently amended) A method of treating a condition selected from central and peripheral pain, neuropathy, neurodegenerative diseases including multiple sclerosis, Parkinson's disease, Huntington's chorea, Alzheimer's disease; mental disorders such as schizophrenia and depression, endotoxic shock, hypotensive shock; or of modulating appetite; or of modulating the immune system; or of reducing fertility; or of treating diseases associated with motor function such as Tourette's syndrome; or of treating inflammation; or of providing neuroprotection; or of suppressing memory; or of producing peripheral vasodilation; or of treating epilepsy, glaucoma, nausea associated with cancer chemotherapy or nausea associated with Aids wasting syndrome comprising administering to an individual or animal having the condition a therapeutically effective amount of at least

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one compound of formula I below, and physiologically acceptable salts thereof:

wherein,

the "A" ring atoms of compound formula I comprise carbon and 0 to 2 nitrogen heteroatoms;

Ar is an aromatic ring, an aromatic ring <u>having comprising</u> at least one substituent group, a heteroaromatic ring, a heteroaromatic ring <u>having comprising</u> 1 to 5 substituent groups, a heterocyclic ring or a heterocyclic ring <u>having comprising</u> at least one substituent group;

R is selected from H, OH, OCH<sub>3</sub>, alkoxy, OCH<sub>2</sub>CH<sub>2</sub>OH, alcohol, NH<sub>2</sub>, PO<sub>3</sub>H, OPO<sub>3</sub>H, OSO<sub>3</sub>H, halogen, C(halogen)<sub>3</sub>, SE<sub>1</sub>, OE<sub>1</sub> and NE<sub>1</sub>E<sub>2</sub>,

E<sub>1</sub> and E<sub>2</sub> are each independently H or alkyl;

R' is selected from H, OH, alkoxy, OCH<sub>2</sub>CH<sub>2</sub>OH, alcohol, NH<sub>2</sub>, PO<sub>3</sub>H, OPO<sub>3</sub>H, OSO<sub>3</sub>H, halogen, C(halogen)<sub>3</sub>, SE<sub>1</sub>, OE<sub>1</sub> and NE<sub>1</sub>E<sub>2</sub>,

E<sub>1</sub> and E<sub>2</sub> are each independently H or alkyl;

R'' is  $Y-D_1-D_2-T_2$ ,

Y is optionally present and if present is selected from O, S, NH, N-alkyl, C=CH, C≡C, CH<sub>2</sub>, CH(CH<sub>3</sub>), C(CH<sub>3</sub>)<sub>2</sub>, a carbocyclic ring having 4 to 6 ring members and a heterocyclic ring having 4 to 6 ring members with 1 or 2 heteroatoms,

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D<sub>1</sub> is optionally present and if present is alkyl,

D<sub>2</sub> is selected from alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a bicyclic ring, a tricyclic ring, an aromatic ring and a heteroaromatic ring,

T<sub>2</sub> is optionally present and if present is selected from an aromatic ring, a substituted aromatic ring, a heteroaromatic ring, a substituted heteroaromatic ring, a heterocyclic ring, H, OH, halogen, and a substituent group;

R" and R"" are each independently selected from H, halogen, alkyl, alkoxy and a substituent group,

with the proviso that,

when Ar is 4-isopropyl pyridine or 4-isopropenyl pyridine, R" is hydrogen, and R" is hydrogen, then R" can not be a straight or branched saturated alkyl having 1 to 20 carbon atoms;

when Ar is 4-isopropyl toluene or 4-isopropenyl toluene, and both R" and R" are hydrogen, R" can not be a straight or branched saturated alkyl having 1 to 20 carbon atoms;

when R" is  $C(CH_3)_2(CH_2)_5CH_3$ ,  $R_2$  and  $R_4$  are methyl, then R' and R" can not be H, OH or  $OCH_3$ .

23. (previously presented) The method of claim 22, wherein:

R" is selected from H, halogen, C(halogen)3, lower alkyl and alkoxy;

R"" is selected from H, halogen,  $C(halogen)_3$ , lower alkyl and alkoxy; and R" is  $-Y-D_1-D_2-T_2$ ,

Y is optionally present and if present is selected from O, S, NH, N-alkyl, C=CH, C≡C, CH<sub>2</sub>, CH(CH<sub>3</sub>), C(CH<sub>3</sub>)<sub>2</sub>, a carbocyclic ring having 4 to 6 ring members and a heterocyclic ring having 4 to 6 ring members with 1 or 2 heteroatoms,

D<sub>1</sub> is optionally present and if present is alkyl,

D<sub>2</sub> is selected from alkyl, NH, N-alkyl, O-alkyl, S-alkyl, a carbocyclic ring, a

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bicyclic ring, a tricyclic ring, an aromatic ring and a heteroaromatic ring,

T<sub>2</sub> is optionally present and if present is selected from an aromatic ring, a heteroaromatic ring, a heterocyclic ring, H, OH, halogen and a substituent group.